

REMARKS

This Request for Continued Examination and Amendment follows the outstanding Final Official Action dated 09/23/02 and is intended as a complete and proper response thereto. In particular, the present paper is presented with the view of advancing prosecution of this application on its merits and hopefully placing this case in a clear condition for allowance.

In order to render this Amendment responsive, a Petition for Extension of Time to Respond Within the Third Month Pursuant to § 1.136(a) is submitted herewith in duplicate along with the requisite petition fee of \$465.00 commensurate with the applicant's small entity status as previously established.

Claims 7-21 remain in the application. These remaining claims have been amended in accordance with the examiners detailed action. Reexamination and reconsideration of the application, as amended, is requested.

Claim 12 was originally objected to by the examiner as containing certain informalities, namely, that it contained the phrase "delivering said sand and said slab to be leveled." Applicant was unable to find in the amendment to claim 12 this language. This may have been the result of a scanning error at the USPTO. An amendment to claim 12 is included in this response as well as a clean version of claim 12 as it now stands.

Claims 7-11 and 18-12 were also rejected under 35 U.S.C. § 112. Appropriate corrections and amendments were made to the claims in accordance with the examiners rejections.

Claims 7, 12, and 17-20 have all been rejected under 35 U.S.C. § 103(a) as being unpatentable over Wildon 5,558,474 in view of Poulter 1,915,032. For prior art references to be combined to render obvious a subsequent invention under § 103, there must be something in the prior art as a whole which suggests the desirability, and thus the obviousness, of making the combination. *Uniroyal v. Rudkin-Wiley*, 5 U.S.P.Q. 2d 1434, 1438 (Fed. Cir. 1988). The teaching of the references can be combined only if there is some suggestion or incentive in the prior art to do so. *In re Fine*, 5 U.S.P.Q. 2d 1596, 1599 (Fed. Cir. 1988). Hindsight is forbidden. It is impermissible to use the claims as a framework from which to pick and choose individual references to recreate the claimed invention. *Id.* at 1600; *W.L. Gore*, 220 U.S.P.Q. at 312. Moreover, the mere fact that a prior art structure could be modified to produce the claimed invention would not have made the modification obvious unless the prior art suggested the desirability of the modification. *In re Fritch*, 23 U.S.P.Q. 2d 1780, 1783 (Fed. Cir. 1992); *In re Gordon*, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984).

As previously discussed, the Wildon 474 patent generally discloses a sand blasting apparatus. Applicant has previously conceded that it is known in the art of sand blasting to mix air and sand for cleaning and blasting of materials and this is what Wildon appears to disclose. In no part does Wildon ever consider, discuss, or suggest that it's device may be used for any type of slab leveling or pavement adjustment of any kind. In fact, Wildon specifically lays out examples of the use of the it's device for cleaning of walls and buildings.

The Poulter 032 patent discloses the use of a method for correcting pavement or slab settling. This device uses a drilled

hole through the pavement or slab and a metal lining placed in the drilled hole. A pump is inserted into the hole and a suitable filling material is forced through the opening. Poulter specifically lists that this filing material consists of a fluid mixture of dirt and water, i.e. mud, with a small percentage of cement. Poulter goes on to state in column 2, beginning on line 8, "It frequently happens, however, that other materials in a fluid state can be used to this advantage. It is merely essential that the material used be capable of drying out quickly and leaving a hard filing material in the cavity beneath the pavement being treated. If the pavement has settled as in Figure 1, the forcing of a filling fluid there through will cause the depressed section to be lifted to the proper elevation. It will there be held by the filing fluid while it is drying out or hardening." As can be seen, Poulter specifically teaches and requires the use of a wet material such as mud or cement.

Again, the examiner will note from the current application that applicant concedes that it is known to use mud pumping to raise cement and mud pumping is accomplished by drilling a hole in a slab or piece of pavement and pumping mud under the slab. However, the use of mud pumping, or mud jacking as it is commonly called, carries with it a variety of problems, namely, that the material must be in a wet or fluid state and as such, when it dries, it shrinks. This requires that the mud jacker overfill by guessing such that when the material dries and the pavement resettles, it is hoped that it can be leveled. This often requires several trips and is very inaccurate and unstable.

The examiner has initially rejected claim 7 by combining both Wildon and Poulter. As can be seen, claim 7 as it currently stands lists an injector gun having a bleed off valve for

releasing excess pressure and a gun nozzle for the delivery of a sand air mixture. The gun nozzle has a threaded end that may be hammered into the drilled hole so as to create a substantially fluid tight connection with said drilled hole. As described in this application, the use of the threads and by hammering this device into the hole creates a substantially fluid tight connection. Further, as the end of the gun is worn by the sand and air and the threads are also worn by pounding and being pulled out of cement or pavement holes, this end is often changed and is disposable.

The examiner has stated that Wildon discloses a sand storage tank and outlet, a compressed air source and a mixing chamber, an injector gun having a valve, and a gun nozzle for delivery of the sand air mixture. The examiner states that Wildon does not disclose the use of a threaded nozzle for connection with the concrete slab, however Poulter teaches a method and means for correcting sunken pavement, said means comprising a sand pump and an injection means. Poulter teaches a means of connecting a pump to a sleeve having threads. Again, as can be seen from the current application, it's description and the claim as it now stands, there is no sleeve that is used, nor is the hole threaded going into the concrete. The claim as presented and as it stands now, also includes the limitation of a bleed off valve for releasing excess pressure. This is not addressed in the examiners action and is not shown anywhere in Poulter or Wildon.

Finally, the examiner argues that it would be obvious of one of ordinary skill in the art to provide the sand blaster of Wildon with a threaded nozzle as taught by Poulter in order to inject a well known fill material. Again, as previously stated, Wildon does not disclose the use of it's device for any type of concrete

raising or slab filling and Poulter specifically teaches away from the use of sand and air by teaching the use of a mud or wet mixture and as such, it is believed that the use of these two references in conjunction with each other from completely different art forms would not be allowed under Section 103 as it is clear that they teach away from the use of each device in combination.

In regard to claims 12 and 17-20, the examiner has once again used Wildon and Poulter to deny these claims under Section 103 by stating that Wildon shows the use of a storage tank sand and a compressed air source while Poulter teaches drilling a hole, attaching the gun nozzle, and operating the injector gun in bursts so as to provide compressed air sufficient to temporarily lift said slab and deliver a quantity of sand to permanently fill under said raised slab. Once again, the applicant takes issue with this finding as nowhere in Wildon is there any suggestion or teaching to use this device to lift slabs or pavement that is not level. In fact, as pointed out earlier, Wildon specifically teaches the use of the sand blasting apparatus for the cleaning of concrete walls, i.e. the typical use for sandblasting machines.

Further, Poulter specifically teaches the use of a wet material pumped under the cement with such force that the material itself raising the slab. In fact, this clearly teaches away from the use of any type of air. As can clearly be seen, any type of hand pump could not use air to raise the slab and, as pointed out, does teach the use of forcing a wet filling mixture under the slab to lift the slab into it's proper elevation where it can be held by the fluid while it is drying out or hardening. Once again, this is completely opposite from the use of air in pulses

to raise the cement for an instant while sand is placed under the cement. In no way does Poulter teach that it could be combined with Wildon to form the present device and in fact, as pointed out, both of these applications teach away from what is currently claimed.

Claim 8 has been rejected under Section 35 U.S.C. §103 as being unpatentable over Wildon in view of Poulter as discussed above as applied to claim 7 which has been discussed above and it is believed has been traversed, and in further view of the Carey-Yard 4,850,752 patent. The Carey-Yard patent discloses a tool for stone blowing and in no way discloses any type of tool for using air or sand to lift pavement or slabs. Further, as these are stone or large rocks being thrown, there is no "Venturi effect". As can be seen, the air is attached to the stone hose at an opening on the side of the hose. Claim 8 has been amended to more clearly define that a smaller air source hose is fitted inside and extends into a larger diameter outlet so as to create a "Venturi effect". Carey-Yard in no way creates this "Venturi effect" and thus, it is believed that this finding has been traversed. Finally, once again, there is no teaching in Carey-Yard, Poulter or Wildon for the combination of these devices and has described above, hindsight for applying these references is forbidden under Section 103.

Claims 9-11 have further been rejected as being unpatentable over Wildon in view of Poulter and Carey-Yard as discussed above and applied to claim 8, in further view of the Casella 5,974,611 patent. The Casella patent discloses a device having multiple attachments such as an attachment for pressure purging devices used to launch pellets for the purpose of purging or cleaning tubes, pipes, conduits and hoses. Another attachment is the

spool attachment which allows for the projection of cord attached to a pallet through pipes, tubes, conduits or hoses. Once again, it is believed that there is clearly no teaching in any of the prior art to combine Casella, an interlocking multi-purpose air tool device for cleaning tubes, with Carey-Yard, a device for blowing stones, in combination with Wildon, a common sand blasting apparatus, and Peters, a mud jacking method for correcting paved settlements. As there is clearly no teaching that it would be useful or desirable to combine all these references, it is believed that this combination is impermissible. Further, as described and argued above, it is believed that it has been shown that the use of this combination still does not disclose or teach the use of pulses of air and sand to raise slabs and to level them.

Claims 13-16 and 21 have also been rejected under 35 U.S.C. Section 103 as being unpatentable over Wildon and Poulter as applied to claim 12 and discussed above, in further view of Feldsted patent 4,466,760. The Feldsted patent discloses a mobile material handler and method for transferring bulk materials and in particular, solves problems associated with the storage and transfer of large amounts of dry powdered bulk materials through the use of a vacuum pressure pneumatic conveyor mounted on a frame. Once again, this device in no way discusses or refers to the use of any type of sand and air mixture to raise slabs and further, appears to be used solely for storage and transfer of materials. Applicant concedes that relief valves are known in the world however, Feldsted does not even show, as disclosed by the examiners argument, stating that a relief valve is not shown, the use of a relief valve in the arrangement as currently claimed. Thus, once again it is believed that these arguments have been overcome in particular by showing that there


is no teaching and in fact, there is teachings that it is not desirable to combine these references and that there is in no way any sort of teaching or desireable outcome that could be envisioned by reading the Feldsted patent for a mobile material handler and method of transferring bulk materials in combination with the Carey-Yard patent for blowing stones in further combination with the Wildon patent for a common sand blaster and finally, the Poulter patent for mud jacking.

In light of the foregoing discussion of the applied art of record, the presentation of the amended schedule of claims and the indication as to how such claims are considered to clearly and patentably define over the references, it is believed that the patentable nature of the claims has been demonstrated.

In view of the above remarks, reconsideration and allowance of the claims is kindly requested. Should any matters remain outstanding that may be handle over the phone the examiner is encouraged to call.

Respectfully Submitted,

Date: 3-24-03


Curtis V. Harr
Attorney for the Applicant
Reg. No. 37,844
P.O. Box 2842
Fargo, ND 58108-2842
Voice (701) 298-3001
Fax (701) 298-3002